

ABSTRACT

A gas supplying apparatus for supplying deposition gas onto a substrate surface, the gas supplying apparatus comprising: a gas supplying ring with one or more gas supplying channels formed along the interior of the gas supplying ring and with a plurality of gas distribution channels directed toward a center of the gas supplying ring; and a plurality of adapters with gas nozzles connecting to the gas distribution channels, respectively, that detachably connect to the interior of the gas supplying ring, wherein the gas nozzles have a variety of injection configurations.